

# PRODUCT INFORMATION



## Tosufloxacin (tosylate)

Item No. 21427

**CAS Registry No.:** 115964-29-9  
**Formal Name:** 7-(3-amino-1-pyrrolidinyl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylic acid 4-methylbenzenesulfonate

**MF:** C<sub>19</sub>H<sub>15</sub>F<sub>3</sub>N<sub>4</sub>O<sub>3</sub> • C<sub>7</sub>H<sub>8</sub>O<sub>3</sub>S  
**FW:** 576.5

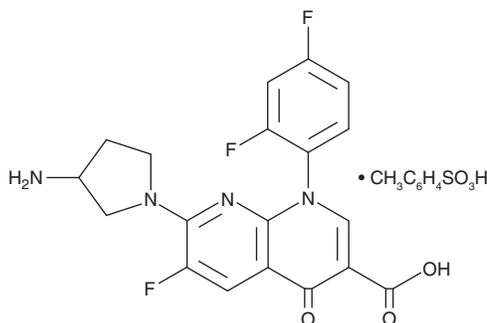
**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 221, 269, 341 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Tosufloxacin (tosylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the tosofloxacin (tosylate) in the solvent of choice, which should be purged with an inert gas. Tosufloxacin (tosylate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of tosofloxacin (tosylate) in these solvents is approximately 30 mg/ml. Tosufloxacin (tosylate) is slightly soluble in ethanol.

Tosufloxacin (tosylate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tosofloxacin (tosylate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Tosufloxacin (tosylate) has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Tosufloxacin is a fluoroquinolone antibiotic. It has activity against diverse aerobic and anaerobic bacteria *in vitro*.<sup>1,2</sup> Tosufloxacin is also effective against bacterial persisters, showing significant activity against *S. aureus* and uropathogenic *E. coli* persisters.<sup>3,4</sup> As with many other quinolones, tosofloxacin use can be associated with significant side effects.<sup>5</sup>

### References

1. Espinoza, A.M., Chin, N.-X., Novelli, A., *et al.* Comparative *in vitro* activity of a new fluorinated 4-quinolone, T-3262 (A-60969). *Antimicrob. Agents Chemother.* **32**(5), 663-670 (1988).
2. Fernandes, P.B., Chu, D.T.W., Swanson, R.N., *et al.* A-61827 (A-60969), a new fluoronaphthyridine with activity against both aerobic and anaerobic bacteria. *Antimicrob. Agents Chemother.* **32**(1), 27-32, (1988).
3. Niu, H.Y., Cui, P., Yee, R., *et al.* A clinical drug library screen identifies tosofloxacin as being highly active against *Staphylococcus aureus* persisters. *Antibiotics (Basel)* **4**(3), 329-336 (2015).
4. Niu, H.Y., Cui, P., Shi, W., *et al.* Identification of Anti-Persister Activity against Uropathogenic *Escherichia coli* from a Clinical Drug Library. *Antibiotics (Basel)* **4**(2), 179-187 (2015).
5. Rubinstein, E. History of quinolones and their side effects. *Chemotherapy* **47**(Suppl. 3), 44-48 (2001).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM